

Please cancel claims 28 and 29.

Please replace claims 10, 19, 25, and 32 as follows.

C1
cancel

10. (once amended) A receiver, comprising:

a substrate;
a first mixer that performs up-conversion and is disposed on the substrate;
a differential filter coupled to an output of the first mixer; and
a second mixer that performs down-conversion, disposed on the substrate and coupled to an output of the differential filter.

C2
cancel

19. (once amended) A receiver that processes a RF signal having a plurality of channels, the receiver comprising:

a substrate;
a first circuit, disposed on the substrate, that up-converts the RF signal to a first IF signal;
a differential filter that removes at least one channel from the first IF signal;
a second circuit, disposed on the substrate, that performs image rejection and down-conversion and generates a second IF signal; and
at least the first IF signal comprising a differential signal.

C3
cancel

25. (once amended) A method for processing a RF signal having a plurality of channels, comprising:

- (1) mixing the RF signal with a first differential local oscillator signal to produce a first differential IF signal;
- (2) removing at least one unwanted channel from the first differential IF signal using a differential filter to produce a second differential IF signal;
- (3) adjusting the first local oscillator signal so that a selected channel in the plurality of channels is shifted into a passband of the differential filter; and
- (4) mixing the second differential IF signal with a second differential local oscillator signal to produce a second differential IF signal;

C3
cancel.

wherein steps (1), (3), and (4) are performed on a common substrate, and wherein step (2) is performed external to the common substrate.

C4
cancel.

32. (once amended) A receiver for processing a plurality of channels, comprising:

- a substrate;
 - a first differential mixer disposed on the substrate, and that performs up-conversion;
 - a differential filter coupled to an output of the first differential mixer and configured external to the substrate; and
 - a second differential mixer, disposed on the substrate and coupled to an output of the differential filter, said second differential mixer providing down-conversion and image rejection.
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